2458-4042 PC Morry

PATENT COOPERATION TREATY

	KAMINING AUTHORI	•	DOT
To: EUGENE MOROZ MORGAN & FINNEGAN, L.L.P. 345 PARK AVENUE NEW YORK, NY 10154		PCT NOTIFICATION OF RECEIPT OF DEMAND BY COMPETENT INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY	
		Date of mailing (day/month/year)	08JUN2001
Applicant's or agent's file reference 2458-4042PC	·	IMPORTANT NOTIFICATION	
International application No.	International filing date	day'month'year)	Priority date (day'month'year)
PCT/US00/17540	26 JU	N 00	25 JUN 99
The applicant is hereby notified the	at this International Prelin	ninary Examining A	uthority considers the following date as the date
of receipt of the demand for interns		nation of the interna	tional application:
	<u>~5</u>	ganua	ry 200 (
2. That date of reg€ipt is:	4		/
	eipt of the demand by this	Authority (Rule 61	.1(b)).
the actual date of rece	ipt of the demand on beh	alf of this Authority	(Rule 59.3(e)).
	nis Authority has, in resived the required correction		tion to correct defects in the demand (Form
election(s) made in the dema from the priority date (or late	nd does (do) not have the	effect of postponing	in this from the priority date. Consequently, the the entry into the national phase until 30 months to the acts for entry into the national phase must
be performed within 20 mon Applicant's Guide, Volume I	oths from the priority dat		Offices) (Article 22). For details, see the <i>PCT</i>
Applicant's Guide, Volume I	nths from the priority dat I.	e (or later in some (
Applicant's Guide, Volume I (If applicable) This no	nths from the priority dat I. otification confirms the inf	e (or later in some 6	Offices) (Article 22). For details, see the <i>PCT</i> elephone, facsimile transmission or in person on:
Applicant's Guide, Volume I	nths from the priority dat I. otification confirms the inf	e (or later in some 6	Offices) (Article 22). For details, see the <i>PCT</i> elephone, facsimile transmission or in person on:
Applicant's Guide, Volume I (If applicable) This not 4. Only where paragraph 3 applies, a	nths from the priority dat I. otification confirms the inf	e (or later in some 6 ormation given by te has been sent to the	Offices) (Article 22). For details, see the PCT elephone, facsimile transmission or in person on: International Bureau.
Applicant's Guide, Volume I (If applicable) This no	nths from the priority dat I. otification confirms the inf	e (or later in some 6 formation given by te has been sent to the Authorized officer	Offices) (Article 22). For details, see the PCT elephone, facsimile transmission or in person on: International Bureau.
Applicant's Guide, Volume I (If applicable) This not 4. Only where paragraph 3 applies, a	nths from the priority dat I. otification confirms the inf	e (or later in some 6 ormation given by te has been sent to the	Offices) (Article 22). For details, see the PC7 elephone, facsimile transmission or in person on: International Bureau.

PATENT COOPERATION TREATY

2458-4042 PC Morry

From the INTERNATIONAL SEARCHING AUTHORITY

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To: EUGENE MOROZ MORGAN & FINNEGAN, L.L.P.	PCT
\$45 PARK AVENUE	••••
NEW YORK, NEW YORK 10154	NOTIFICATION OF TRANSMITTAL OF
CASE 2458-4042 PC ATTY MSM	THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION
DUE May 23, 2001 (U.S. Suppl. ID	(PCT Rule 44.1)
1 mo. call-up 491 23, 2001	
BY J.M	Date of Mailing (day/month/year) 23 FEB 2001
Applicant's or agent's file reference	FOR FURTHER ACTION See paragraphs 1 and 4 below
2458-1042PC	FOR FORTHER ACTION See paragraphs 1 and 4 below
International application No.	International filing date (day/month/year)
PCT/US00/17540	26 JUNE 2000
Applicant GENAISSANCE PHARMACEUTICALS, INC.	
1. X The applicant is hereby notified that the internation	al search report has been established and is transmitted herewith.
Filing of amendments and statement under Artic The applicant is entitled, if he so wishes, to amend	le 19: the claims of the international application (see Rule 46):
	ents is normally 2 months from the date of transmittal of the more details, see the notes on the accompanying sheet.
Where? Directly to the International Bureau of	WIPO CASE <u>2458-4042 PC ATTY</u>
34, chemin des Colomber 1211 Geneva 20, Switzer Facsimile No.: (41-22) 74	Pland DUE (Inai) 22 2001 (A I co
For more detailed instructions, see the notes on	the accompanying sheet. call-up Much 23 2000
2. The applicant is hereby notified that no internations Article 17(2)(a) to that effect is transmitted herewith	I search report will be established and that the declaration under h.
3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
	has been transmitted to the International Bureau together with of both the protest and the decision thereon to the designated
no decision has been made yet on the protest	; the applicant will be notified as soon as a decision is made.
4. Further action(s): The applicant is reminded of the fo	llowing:
If the applicant wishes to avoid or postpone publication	national application will be published by the International Bureau. In a notice of withdrawal of the international application, or of the sprovided in rules 90 bis 1 and 90 bis 3, respectively, before the bonal publication.
	ternational preliminary examination must be filed if the applicant ntil 30 months from the priority date (in some Offices even later).
Within 20 months from the priority date, the applicant n before all designated Offices which have not been elect priority date or could not be elected because they are	nust perform the prescribed acts for entry into the national phase led in the demand or in a later election within 19 months from the not bound by Chapter II.
Name and mailing address of the ISA/US	Authorized officer
Commissioner of Patents and Trademarks	1
Box PCT Washington, D.C. 20231	MARIANNE P. ALLEN Telephone No. (708) \$08-0196 Telephone No. (708) \$08-0196
Facsimile No. (703) 305-3230	Telephone No. (703) \$08-0196

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: EUGENE MOROZ MORGAN & FINNEGAN, LLP. 345 PARK AVENUE	PCT	
NEW YORK, NEW YORK 10154	NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION	
	(PCT Rule 44.1)	
	Date of Mailing (day/month/year) 23 FEB 2001	
Applicant's or agent's file reference 2458-4042PC	FOR FURTHER ACTION See paragraphs 1 and 4 below	
International application No.	International filing date (day/month/year)	
PCT/US00/17540	26 JUNE 2000	
Applicant GENAISSANCE PHARMACEUTICALS, INC.		
1. X The applicant is hereby notified that the internation	al search report has been established and is transmitted herewith.	
Filing of amendments and statement under Artic The applicant is entitled, if he so wishes, to amend	le 19: the claims of the international application (see Rule 46):	
	ents is normally 2 months from the date of transmittal of the more details, see the notes on the accompanying sheet.	
Where? Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35		
For more detailed instructions, see the notes or	the accompanying sheet.	
2. The applicant is hereby notified that no internations Article 17(2)(a) to that effect is transmitted herewit	d search report will be established and that the declaration under h.	
s. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:	
the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.		
no decision has been made yet on the protes	t; the applicant will be notified as soon as a decision is made.	
4. Further action(s): The applicant is reminded of the fo	llowing:	
If the applicant wishes to avoid or postpone publication	national application will be published by the International Bureau. In, a notice of withdrawal of the international application, or of the In provided in rules 90 bis 1 and 90 bis 3, respectively, before the In publication.	
	nternational preliminary examination must be filed if the applicant intil 30 months from the priority date (in some Offices even later).	
	nust perform the prescribed acts for entry into the national phase ted in the demand or in a later election within 19 months from the enot bound by Chapter II.	
Name and mailing address of the ISA/US	Authorized officer	
Commissioner of Patents and Trademarks	MARIANNE PLATIEN	

Facsimile No. (703) 305-3230
Form PCT/ISA/220 (July 1998)*

Box PCT Washington, D.C. 20231

(See notes on accompanying sheet)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2458-4042PC		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)	
PCT/US00/17540	26 JUNE 2000	25 JUNE 1999	
Applicant GENAISSANCE PHARMACEUTICALS, INC.			
according to Article 18. A copy is bein	en prepared by this International Searching Aug transmitted to the International Bureau.	thority and is transmitted to the applicant	
This international search report consis	ts of a total of sheets.		
l [copy of each prior art document cited in this	report.	
1. Basis of the report			
, , , , , , , , , , , , , , , , , , , ,	the international search was carried out on the l , unless otherwise indicated under this item.	pasis of the international application in the	
, , , , , , , , , , , , , , , , , , , ,	s carried out on the basis of a translation of the	e international application furnished to this	
b. With regard to any nucleotide was carried out on the basis o		nternational application, the international search	
contained in the internation	al application in written form.		
filed together with the inte	rnational application in computer readable for	rm.	
, -	his Authority in written form.		
furnished subsequently to the	his Authority in computer readable form.		
the statement that the subs	equently furnished written sequence listing d	loes not go beyond the disclosure in	
the statement that the inform furnished.	ation recorded in computer readable form is ide	ntical to the written sequence listing has been	
2. Certain claims were found unsearchable (See Box I).			
5. X Unity of invention is lack	ing (See Box II).		
4. With regard to the title,			
X the text is approved as submitted by the applicant.			
the text has been establish	ed by this Authority to read as follows:		
5. With regard to the abstract,			
X the text is approved as sub	mitted by the applicant.		
	ed, according to Rule 38.2(b), by this Authoric, within one month from the date of mailing of ments to this Authority.		
6. The figure of the drawings to be 1	published with the abstract is Figure No		
as suggested by the applic	ant.	X None of the figures.	
because the applicant failed	d to suggest a figure.		
because this figure better	characterizes the invention.		

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
S. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
Please See Extra Sheet.
·
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
S. X As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: 1-21,30-53,35,45-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160,171-183
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest X The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.
1 b secombanies are balance a secondary section section

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) :G06F 7/00, 17/00; G01N \$5/48, \$5/50; G06T 1/US CL :545/418, 961; 702/19, 20; 707/100, 102, 104 According to International Patent Classification (IPC) or to bo				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system follows	ed by classification symbols)			
U.S. : 345/418, 961; 702/19, 20; 707/100, 102, 104				
Documentation searched other than minimum documentation tearched	o the extent that such documents are i	ncluded in the fields		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
Please See Extra Sheet.				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.		
Y US 5,874,256 A (BERTINA ET AL) 2 see in particular abstract and claims.	23 February 1999 (23-02-99),	1-21,30-33, 35,43-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160,171-183		
X Further documents are listed in the continuation of Box	C. See patent family annex.			
Special categories of cited documents:	"T" later document published after the inte			
"A" document defining the general state of the art which is not considered to be of particular relevance	date and not in conflict with the appl the principle or theory underlying the			
"E" earlier document published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be considered.			
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; th	e claimed invention cannot be		
"O" document referring to an oral disclosure, use, exhibition or other means	considered to involve an inventive step with one or more other such docum obvious to a person skilled in the art	when the document is combined		
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent	family		
Date of the actual completion of the international search 14 NOVEMBER 2000	Date of mailing of the international se 23 FEB 20	arch report		
Name and mailing address of the ISA/US	Authorized officer	1211		
Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	MARIANNE P. ALLEN	for		
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196			

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
Y	US 5,773,220 A (DEKOSKY ET AL) 30 June 1998 (30-06-98), see in particular abstract and claims.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145-15 3,155-160,171-183	
Y,P	US 5,972,614 A (RUANO ET AL) 26 October 1999 (26-10-99), see in particular abstract; claims; column 6, lines 33-55; column 12, lines 10-25.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145-15 3,155-160, 171-183	
У , Р	US 6,022,683 A (POIRIER) 08 February 2000 (08-02-00), see in particular abstract and claims.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160, 171- 183	
У, Р	US 6,043,040 A (ACTON) 28 March 2000 (28-03-00), see in particular abstract, claims, and columns 49-59.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135, 137,145- 153,155-160,171- 183	
Y	US 5,648,482 A (MEYER) 15 July 1997 (15-07-97), see in particular abstract, claims, and columns 23-26.	1-21,30-33,35,43- 51,53-58,69- 78,8384,86,94- 102,104-109,120- 129,134-135,1 37,145-153,155- 160,171-183	
Y, P	US 6,030,778 A (ACTON ET AL) 29 February 2000 (29-02-00), see in particular abstract, claims, and columns 25-30.	1-21,30-33, 35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183	

<u> </u>		Τ
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Y	KLEYN et al. Genetic Variation as a Guide to Drug Development. Science. 18 September 1998, Vol. 281, pages 1820-1821, see entire document.	1-21,30-33,35,43-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160,171-183
Y	MORI et al. HLA Gene and Haplotype Frequencies in the North American Population. Transplantation. 15 October 1997, Vol. 64, No. 7, pages 1017-1027, see entire document.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183
Y	MORI et al. Computer program to predict likelihood of finding an HLA-matched donor: Methodology, validation, and application. Biology of Blood and Marrow Transplantation. October 1996, Vol. 2, pages 134-144, see entire document.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183
Y	MATISE, T. C. Genome Scanning for Complex Disease Genes Using the Transmission/Disequilibrium Test and Haplotype-based Haplotype Relative Risk. Genetic Epidemiology. 1995, Vol. 12, No. 6, pages 641-645, see entire document.	121,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183
Y	COOPER et al. Network Analysis of Human Y Microsatellite Haplotypes. Human Molecular Genetics. 1996, Vol. 5, No. 11, pages 1759-1766, see entire document.	1-21,30-33,35,43-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160,171-183
Y	GENE et al. Haplotype frequencies of eight Y-chromosome STR loci in Barcelona (North-East Spain). International Journal of Legal Medicine. 1999, Vol. 112, pages 403-405, see entire document.	1-21,30-33,3543,- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171-

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Y	CLARK et al. Haplotype Structure and Population Genetic Inferences from Nucleotide-Sequence Variation in Human Lipoprotein Lipase. American Journal of Human Genetics. 1998, Vol. 63, pages 595-912, see entire document.	1-21,30-33,35,43-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160,171-183
Y	CASHMAN et al. The Irish cystic fibrosis database. Journal of Medical Genetics. 1995, Vol. 32, No. 12, pages 972-975, see entire document.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183
У , Р	TISHKOFF et al. The Accuracy of Statistical Methods for Estimation of Haplotype Frequencies: An Example from the CD4 Locus. American Journal of Human Genetics. August 2000, Vol. 67, No. 2, pages 518-522, see entire document.	1-21,30-33,35,43- 51,53-5869-78, 83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183
Y	PERLIN et al. Toward Fully Automated Genotyping: Allele Assignment, Pedigree Construction, Phase Determination, and Recombination Detection in Duchenne Muscular Dystrophy. American Journal of Human Genetics. 1994, Vol. 55, No.4, pages 777-787, see entire document.	1-21,30-33,35,43- 51,53-58,69-78,83- 84,86,94-102,104- 109,120-129,134- 135,137,145- 153,155-160,171- 183
Y	HOANG et al. PAH Mutation Analysis Consortium Database: A Database for Disease-producing and Other Allelic Variation at the Human PAH Locus. Nucleic Acids Research. 1996, Vol. 24, No. 1, pages 127-131, see entire document.	1-21,30-33,35,43-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160, 171-183
У , Р	STEPHENS et al. Single-nucleotide Polymorphisms, Haplotypes, and Their Relevance to Pharmacogenetics. Molecular Diagnosis. December 1999, Vol. 4, No. 4, pages 309-317, see entire document.	1-21,30-33,35,43-51,53-58,69-78,83-84,86,94-102,104-109,120-129,134-135,137,145-153,155-160, 171-183

International application No. PCT/US00/17540

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

DIALOG (files 5, 155) and EAST (files U.S. Patents, European abstracts, Japanese abstracts, and Derwent) search terms: pharmacogenomic, pharmacogenetic, haplotype, genotype, database, computer, clinical trial, population genetics, polymorphism, SNP, Hardy-Weinberg, Mendelian, linkage, phylogenetic, pedigree, locus, gene, phased, unphased

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s)1-8, 69-72, and 120-124, drawn to a method of generating a haplotype database, computer-usable medium, and computer programmed therefore.

Group II, claim(s) 9-12 and 75, drawn to a method of predicting the presence of a haplotype and computer-usable medium therefore.

Group III, claim(s) 15-21, 74-78, and 125-129, drawn to a method of identifying correlation between haplotype pair and clinical response, computer-usable medium, and computer programmed therefore.

Group IV, claim(s) 22-29, 79-82, 150-155, drawn to a method for determining susceptibility to a condition/disease, computer-usable medium, and computer programmed therefore.

Group V, claim(s) 50-33, 83-84, and 134-135, drawn to a method for predicting response to treatment, computer-usable medium, and computer programmed therefore.

Group VI, claim(s) 34, 85, and 156, drawn to a method for generating a tree structure, computer-usable medium, and computer programmed therefore.

Group VII, claim(s) 35, 86, and 137, drawn to a method for displaying haplotype pair frequency, computer-usable medium, and computer programmed therefore.

Group VIII, claim(s) 56-57, 87-88, and 158-159, drawn to a method for displaying a linkage screen, computer-usable medium, and computer programmed therefore.

Group IX, claim(s) 58-40, 89-91, and 140-142, drawn to a method for displaying a phylogenetic tree screen, computerusable medium, and computer programmed therefore.

Group X, claim(s) 41-42, 92-93, and 145-144, drawn to a method for displaying genotypic analysis, computer-usable medium, and computer programmed therefore.

Group XI, claim(s) 43-51, 94-102, and 145-153, drawn to a method to displaying clinical response values, computer-usable medium, and computer programmed therefore.

Group XII, claim(s) 52, 103, and 154, drawn to a method for carrying out a genetic algorithm, computer-usable medium, and computer programmed therefore.

Group XIII, claim(s) 55, 104, and 155, drawn to a method for displaying correlations, computer-usable medium, and computer programmed therefore.

Group XIV, claim(s) 54-55, 105-106, and 156-157, drawn to a method for conducting a clinical trial, computer-usable medium, and computer programmed therefore.

Group XV, claim(s) 56-58, 107-109, and 158-160, drawn to a method for inferring genotype, computer-usable medium, and computer programmed therefore.

Group XVI, claim(s) 59-68, 110-119, and 161-170, drawn to a method of determining polymorphic sites or subhaplotypes, computer-usable medium, and computer programmed therefore.

Group XVII, claim(s) 171-175 and 183, drawn to a data structure.

Group XVIII, claim(s) 176-182, drawn to a method for storing and organizing biological information.

The inventions listed as Groups I-XVIII do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature of each method is the starting materials, method steps, and goal of each method. The corresponding computer-usable medium and computer programmed therefore form part of the inventive concept with each method. Note that PCT Rule 13 does not provide for multiple methods or products.

NOTES TO FORM PCT/ISA/220 (continued)

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- 1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
 "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
- [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
 "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
 "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

The statement should be brief, it should not exceed 500 words if in English or if translated into English.

It should not be confounded with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It should not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

In what language?

The amendments must be made in the language in which the international application is published. The letter and any statement accompanying the amendments must be in the same language as the international application if that language is English or French; otherwise, it must be in English or French, at the choice of the applicant.

Consequence if a demand for international preliminary examination has already been filed?

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase?

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.